

Notice of Allowability

Application No.

10/072,223

Examiner

Nelson D. Hernandez

Applicant(s)

YOSHIKAWA ET AL.

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 17 May 2005.
2. ☒ The allowed claim(s) is/are 1-7.
3. ☒ The drawings filed on 06 February 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Response to Amendment

1. Examiner acknowledges the amendments made on the title. Examiner founds the title not acceptable. The title of the invention is not descriptive. The new proposed title does not clearly define the invention to which the claims are directed. A change in the title has been done as an Examiner's Amendment.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

The title of the invention has been change to "**Wide Range Image Pickup Apparatus and Arrangement for Suppressing the Appearance of Parallax**".

Terminal Disclaimer

3. The terminal disclaimer filed on May 17, 2005 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of U.S. Patent No. 6,870,680 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Allowable Subject Matter

4. **Claims 1-7** are allowed.
5. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 1 and 4, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest the image pickups being disposed such that, where a point at which an extension of straight line component in an object space of a selected one of principal rays passing the center of an aperture stop for a lens set provided in each of said image pickups which is positioned in a gauss region intersects with an optical axis of said lens set is set as an NP (non parallax) point.

Kurahashi, US Patent 5,937,212 discloses an image pickup apparatus (Figs. 1, 6, 18), comprising: a plurality of image pickups (Fig. 1, items 3 and 4) for individually picking up images of a plurality of divisional image pickup objects of an image pickup object extending over a wide range; and a processor (Fig. 1: 8) for receiving image information from said image pickups and processing the image information to produce a single image by stitching images presented by the image information; said image pickups being disposed such that, where the rays passing by the optical axis of the lens provided in each of said image pickups intersects with each other at the NP point (Non Parallax point) (Fig. 1 teaches the rays intersecting each other at the image pickup apparatuses NP points 1a and 2a), the NP point (Fig. 6, position E) is set to a position outside a lens barrel by disposing, intermediately of a light path which passes said lens

Art Unit: 2612

set of the image pickups, a mirror member (Fig. 6, mirrors 59 and 60) for bending incoming light at a predetermined angle in an inclined relationship by a predetermined angle so that the incoming light (See fig. 6) is bent and the NP points of said image pickup means are collectively set within a predetermined radius region centered at one of the NP points (Fig. 6, position E).

However, Kurahashi fails to teach or reasonably suggest that the image pickups being disposed such that, where a point at which an extension of straight line component in an object space of a selected one of principal rays passing the center of an aperture stop for a lens set provided in each of said image pickups which is positioned in a gauss region intersects with an optical axis of said lens set is set as an NP (non parallax) point.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson D. Hernandez whose telephone number is (571) 272-7311. The examiner can normally be reached on 8:00 A.M. to 5:30 P.M..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber can be reached on (571) 272-7308. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2612

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nelson D. Hernandez
Examiner
Art Unit 2612

NDHH
May 28, 2005


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600